



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-1159; Project Identifier AD-2022-00692-E]

RIN 2120-AA64

Airworthiness Directives; Continental Aerospace Technologies, Inc. Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (SNPRM).

SUMMARY: The FAA is revising a notice of proposed rulemaking (NPRM) that applied to certain Continental Aerospace Technologies, Inc. (Continental) Model C-125, C145, GO-300, IO-360, IO-470, IO-520, IO-550, O-300, O-470, TSIO-360, and TSIO-520 series engines with a certain oil filter adapter installed. The NPRM proposed to supersede AD 2022-04-04. This action revises the NPRM by updating the applicability to include Continental model engines with certain oil filter adapters installed and updating the service information references. The FAA is proposing this airworthiness directive (AD) to address the unsafe condition on these products. Since these actions would impose an additional burden by expanding the applicability, the agency is requesting comments on this SNPRM.

DATES: The FAA must receive comments on this SNPRM by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) by searching for and locating Docket No. FAA-2022-1159; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, this SNPRM, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For service information identified in this SNPRM, contact Stratus Tool Technologies, LLC, 2208 Air Park Drive, Burlington, NC 27215; phone: (800) 822-3200; website: tempestplus.com.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

FOR FURTHER INFORMATION CONTACT: George Hanlin, Aviation Safety Engineer, East Certification Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5584; email: 9-ASO-ATLACO-ADs@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2022-1159; Project Identifier AD-2022-00692-E” at the beginning of your comments.

The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may again revise this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to [regulations.gov](https://www.regulations.gov), including any personal

information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this SNPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this SNPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this SNPRM. Submissions containing CBI should be sent to George Hanlin, Aviation Safety Engineer, East Certification Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued an NPRM to amend 14 CFR part 39 by adding an AD that would apply to certain Continental Model C-125-1, C-125-2, C145-2, C145-2H, GO-300-A, GO-300-B, GO-300-C, GO-300-D, GO-300-E, GO-300-F, IO-360-C, IO-360-D, IO-360-DB, IO-360-H, IO-360-HB, IO-360-K, IO-360-KB, IO-470-C, IO-470-D, IO-470-H, IO-470-J, IO-470-K, IO-470-L, IO-470-M, IO-470-N, IO-470-S, IO-470-U, IO-470-V, IO-520-A, IO-520-D, IO-520-F, IO-520-J, IO-520-K, IO-520-L, IO-550-D, IO-550-E, IO-550-F, O-300-A, O-300-B, O-300-C, O-300-D, O-300-E, O-470-A, O-470-B, O-470-G, O-470-J, O-470-K, O-470-L, O-470-M, O-470-N, O-470-R, O-470-S, O-470-U, O-470-11, O-470-15, TSIO-360-E, TSIO-360-EB, TSIO-360-F, TSIO-360-FB, TSIO-360-GB, TSIO-360-LB, TSIO-360-MB, TSIO-360-SB, TSIO-470-C, TSIO-520-C, TSIO-520-G, and TSIO-520-H engines with a certain oil filter adapter installed. The NPRM published in the Federal Register on September 14, 2022 (87 FR 56286). The NPRM was prompted by reports of two accidents that were the result of power loss due to oil starvation. In the NPRM, the FAA proposed to supersede and retain certain requirements of AD 2022-04-

04, Amendment 39-21945 (87 FR 9435, February 22, 2022). In the NPRM, the FAA also proposed to require replacing the oil filter adapter fiber gasket (fiber gasket) with an oil filter adapter copper gasket (copper gasket) or a stainless steel embedded within polytetrafluoroethylene gasket (stainless steel PTFE gasket). In the NPRM, the FAA also proposed to revise the applicability by adding and removing certain model engines and revise the special flight permit paragraph by expanding the limitations. In the NPRM, the FAA also proposed to update the required actions by adding an additional part-numbered stainless steel PTFE gasket as a replacement part.

Actions Since the NPRM was Issued

Since the FAA issued the NPRM, the FAA received a comment from an individual commenter noting that certain engine models were missing from the NPRM's applicability. The commenter also specified that the referenced service information in the NPRM has been revised by the manufacturer. In response to this comment, the FAA determined that additional model engines are affected by the unsafe condition and, as a result, should be added to the applicability paragraph of the NPRM. The FAA also discovered that certain model engines, with permold type crankcases, were inadvertently included in the applicability paragraph of the NPRM. Therefore, the FAA revised the applicability of this proposed AD to include Continental model engines equipped with an F&M Enterprises, Inc. (F&M) or a Stratus Tool Technologies, LLC (Stratus) oil filter adapter installed per Supplemental Type Certificate (STC) SE8409SW, SE09356SC, or SE10348SC. In addition, the manufacturer has published revised service information, which includes the alternative use of a stainless steel PTFE gasket, part number (P/N) ST07, as a replacement part.

Comments

The following discussion presents the comments received on the NPRM and the FAA's response.

Revision to the Applicability

An individual commenter noted that paragraph (c), Applicability, of the NPRM, excluded Continental Model IO-360-G, IO-360-J, IO-360-JB, IO-360-LB, IO-470-E, and IO-470-F engines. The commenter also noted that a review of Continental's online

Illustrated Parts Catalog shows that these model engines use the same accessory housing as other IO-360 model engines, which can accommodate a Stratus oil filter adapter that is included in the NPRM.

The FAA agrees and has revised paragraph (c), Applicability, of this proposed AD to include any Continental model engine equipped with an F&M or a Stratus oil filter adapter installed per STC SE8409SW, SE09356SC, or SE10348SC.

Request to Reference Revised Service Information

An individual commenter stated that the Stratus Tool Technologies Mandatory Service Bulletin SB-001 Rev B has been updated to Rev C, which allows the use of a stainless steel PTFE gasket, P/N ST07. The FAA infers that the commenter is requesting that this proposed AD be revised to reference Stratus Tool Technologies Mandatory Service Bulletin SB-001 Rev C, dated June 16, 2022 (the NPRM refers to Stratus Tool Technologies Mandatory Service Bulletin SB-001 Rev B, dated June 17, 2021).

The FAA agrees and has revised this proposed AD to include reference to Stratus Tool Technologies Mandatory Service Bulletin SB-001 Rev C, dated June 16, 2022, and added paragraph (i), Credit for Previous Actions, which would provide credit for the replacement of a fiber gasket with a copper gasket in accordance with Stratus Tool Technologies Mandatory Service Bulletin SB-001 Rev B, dated June 17, 2021.

FAA's Determination

The FAA is proposing this AD after determining the unsafe condition described previously is likely to exist or develop in other products of the same type design. Certain changes described above expand the scope of the NPRM. As a result, it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

Related Service Information under 1 CFR Part 51

The FAA reviewed Stratus Tool Technologies Mandatory Service Bulletin SB-001 Rev C, dated June 16, 2022. This service information specifies procedures for removing a fiber gasket and replacing it with a copper gasket, P/N AN900-28 or P/N AN900-29, or a stainless steel PTFE gasket, P/N ST07, as an improved alternative to the copper gasket.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Proposed AD Requirements in this SNPRM

This proposed AD would retain certain requirements of AD 2022-04-04. This proposed AD would require replacing the fiber gasket with a copper or stainless steel PTFE gasket. This proposed AD would also revise the applicability to include Continental model engines equipped with an F&M or a Stratus oil filter adapter installed per STC SE8409SW, SE09356SC, or SE10348SC in accordance with the service information previously described.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 6,300 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Replace fiber gasket with copper gasket or stainless steel PTFE gasket	2.5 work-hours x \$85 per hour = \$212.50	\$34	\$246.50	\$1,552,950

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs" describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive 2022-04-04, Amendment 39-21945 (87 FR 9435, February 22, 2022); and
- b. Adding the following new airworthiness directive:

Continental Aerospace Technologies, Inc.: Docket No. FAA-2022-1159; Project Identifier AD-2022-00692-E.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2022-04-04, Amendment 39-21945 (87 FR 9435, February 22, 2022).

(c) Applicability

This AD applies to Continental Aerospace Technologies, Inc. (Continental) model engines equipped with an F&M Enterprises, Inc. (F&M) or a Stratus Tool Technologies, LLC (Stratus) oil filter adapter installed per Supplemental Type Certificate SE8409SW, SE09356SC, or SE10348SC.

Note 1 to paragraph (c): These F&M and Stratus oil filter adapters are known to be installed on Continental Model C-125, C-145, GO-300, IO-360, IO-470, IO-520, IO-550, O-300, O-470, TSIO-360, and TSIO-520 series engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 8550, Reciprocating Engine Oil System.

(e) Unsafe Condition

This AD was prompted by reports of two accidents that were the result of power loss due to oil starvation. The FAA is issuing this AD to prevent loss of engine power. The unsafe condition, if not addressed, could result in failure of the engine, in-flight shutdown, and loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Before accumulating 50 flight hours after the effective date of this AD or at the next scheduled oil change after the effective date of this AD, whichever occurs first, remove any F&M or Stratus oil filter adapter fiber gasket from service and replace it with an oil filter adapter copper gasket, part number (P/N) AN900-28 or P/N AN900-29, or a

stainless steel polytetrafluoroethylene gasket, P/N ST07, as applicable, in accordance with the Compliance Instructions, paragraph 6., pages 6 through 10 (including all detailed instructions for Figure 5 through Figure 16), of Stratus Tool Technologies Mandatory Service Bulletin SB-001 Rev C, dated June 16, 2022.

(h) Installation Prohibition

After the effective date of this AD, do not install an F&M or a Stratus oil filter adapter fiber gasket on any affected engine.

(i) Credit for Previous Actions

You may take credit for the actions required by paragraph (g) of this AD if you performed those actions before the effective date of this AD using Stratus Tool Technologies Mandatory Service Bulletin SB-001 Rev B, dated June 17, 2021, which was previously approved for IBR on March 29, 2022 (87 FR 9435, February 22, 2022), but is not incorporated by reference in this AD.

(j) Special Flight Permit

A special flight permit may be issued in accordance with 14 CFR 21.197 and 21.199 to permit a one-time non-revenue ferry flight to operate the airplane to the nearest location where the maintenance action can be performed provided that the engine oil pressure and engine oil temperatures are in their allowable ranges and there is no noticeable increase in engine noise. This flight must be performed with no passengers on board.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, East Certification Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification branch, send it to the attention of the person identified in paragraph (l)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) AMOCs approved for AD 2022-04-04 (87 FR 9435, February 22, 2022) are approved as AMOCs for the corresponding provisions of this AD.

(l) Related Information

(1) For more information about this AD, contact George Hanlin, Aviation Safety Engineer, East Certification Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5584; email: 9-ASO-ATLACO-ADs@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (m)(4) and (5) of this AD.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Stratus Tool Technologies Mandatory Service Bulletin SB-001 Rev C, dated June 16, 2022.

(ii) [Reserved]

(3) For service information identified in this AD, contact Stratus Tool Technologies, LLC, 2208 Air Park Drive, Burlington, NC 27215; phone: (800) 822-3200; website: tempestplus.com.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on May 25, 2023.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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